

Southern Realignment, Party Sorting, and the Polarization of American Primary Electorates, 1958-2012

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Abstract: Most work on the polarization of Congress has argued that primary elections have played little or no role. Almost none of this work, however, attempts to measure the policy preferences of primary electorates directly. We use Bayesian item-response theory estimates to compare the policy preferences of primary voters over time. Although the overall distribution of population preferences has changed little, preferences of primary voters are now more related to the party primary that they attend. Liberals are much more likely to turn out in Democratic primaries and conservatives are much more likely to turn out in Republican primaries. We estimate that divergence of primary electorates is six times larger in 2012 than in 1958 due to this sorting. Sorting in primary elections appears to have begun in the mid-century South with sorting in non-Southern primaries following that lead, suggesting the Southern realignment was a mechanism for initiating the sorting of nationwide primary electorates.

Keywords: political polarization; primary elections; Southern realignment; Bayesian methods.

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That Democrats and Republicans in the United States Congress vote more homogeneously within party and disagree more consistently between parties since the 1970s is one of the most important unexplained phenomena in American politics. There was a greater ideological gap between the parties in 2015 than in recent memory (Voteview Blog, 2015). This has led to a state of increasing gridlock, and concern that the use of the supermajoritarian procedures of American government could block action even when consensus in favor of it is fairly widespread and a need for resolution to national problems is urgent (e.g., Bonica et al., 2013; Mann and Ornstein, 2013).

What makes Congressional polarization puzzling is that the preponderance of evidence shows little if any increase in the dispersion of the policy views of the citizenry over this period (Fiorina, Abrams, and Pope, 2005; Fiorina and Abrams, 2008; Fiorina, Abrams, and Pope, 2008; Fiorina and Abrams, 2012; Hetherington, 2009; Hill and Tausanovitch, 2015; Levendusky, 2009a). If representatives in Congress behave in the interests of their constituents, why would they become more extreme if their voters have not? Although there are some who dispute that voters have not polarized, most would agree that polarization in Congress has been a dramatic and sustained trend whereas polarization in the public remains marginal and of uncertain magnitude.

Interest in the root causes of polarization has led to extensive research.¹ One prominent strand of this literature focuses on nominating contests. Jacobson (2012) argues that polarization stems from polarized primary electorates nominating more polarized candidates for office.² However, if the public has not changed its views, why would primary elections today lead to polarization when primary elections in the past did not?

Indeed, the literature on primary electorates has largely argued that they cannot be the cause of increasing polarization. There is some evidence for the argument that more extreme primary electorates lead to more extreme candidates (Brady, Han, and Pope, 2007; Hall and Snyder Jr, 2013). However, other research finds that reforms which broaden access to the primary ballot have not reduced polarization. Hirano et al. (2010) show that the introduction of primary elections, a

¹ See, e.g., Han and Brady (2007); Levendusky (2009b); McCarty, Poole, and Rosenthal (2006, 2009); Nivola and Brady (2007); Theriault (2006); Thomsen (2014).

² Hall (2015) presents evidence of a causal effect of primary election results on congressional behavior.

much more open process than previous nominating procedures, had little effect on congressional polarization. Moreover, neither the level of turnout in the primary nor the closeness of the primary election has an effect. More open nominating contests do not seem to reduce polarization in Congress (Bullock and Clinton, 2011; McCarty, Poole, and Rosenthal, 2006) or in state legislatures (Bullock and Clinton, 2011; McGhee et al., 2014).

An explanation for polarization that has temporal correspondence to the changes in Congress is the partisan realignment of the American South. Many of the centrists who left Congress in the 1970s and 1980s were Southern Democrats who made up the conservative wing of the Democratic Party. These centrists were replaced by more conservative Southern Republicans. Although this explanation is consistent with work on the Southern realignment and work arguing that race is a central feature of American party politics (e.g., Tesler, 2016), it has found little support in the literature on congressional polarization (though, see Frymer, 2011). McCarty, Poole, and Rosenthal (2006, p. 49-51) in particular point out that Congressional polarization is both a Northern and Southern phenomenon, and argue that the Southern realignment cannot account for polarization.

We argue that the Southern realignment is directly related to sorting in primary elections. We show that there have been large changes in the policy preferences of the Americans who vote in Democratic and Republican primaries over the last 60 years, and that these changes in primary electorates correspond to the larger changes in national politics. Using nationally representative samples of voters, we show first that the set of voters who turn out in partisan primary electorates has grown more polarized from 1958 to 2012. The assumption that primaries with more open rules of participation (in contrast to closed primaries) should have led to more moderate primary electorates does not appear to be correct (consistent with the evidence in Hill (2015), see also Sides et al. (2014)). This observation opens up the possibility that polarized primary electorates may be an important cause of congressional polarization. Second, we show that the polarization of primary electorates is due more to party sorting than to changes in which voters participate in nominating contests. In particular, liberals are now much more likely to participate in Democratic primaries, and conservatives more likely to participate in Republican primaries. This suggests that levels or

rules of participation may not be the most relevant features of nominating contests.

Third, we show that this trend of sorting into more homogenous party primaries began in the mid-20th century American South. Conservatives from Southern Democratic party primaries departed and began to vote in Southern Republican primaries. This Southern sorting is followed by polarization of non-Southern primary electorates. While non-Southern primaries were modestly sorted from the beginning of our time series – in fact, more sorted than Southern primaries in the 1950s and 1960s – it is only after sorting in Southern primaries had been in progress for more than a decade that non-Southern primaries began diverging to the levels of today.

Our evidence comes from a time-series of comprehensive estimates of American voter ideology using the American National Election Studies (ANES, American National Election Studies, 2014). We draw on estimates of citizen ideology from the replication archive of Hill and Tausanovitch (2015). Although Hill and Tausanovitch (2015) find little polarization in the American population as a whole, we use these same estimates to show that the primary electorates have polarized. Voters with extreme views have a greater relative likelihood of participating in primaries today, and primaries today are more ideologically homogenous than in the past. This trend is analogous to the trend of “party sorting” (Fiorina and Abrams, 2012; Levendusky, 2009*b*).

In sum, we find important changes in the ideology of party primary electorates over the time period 1958 to 2012. These changes correspond to a period of dramatic changes in party behavior in Congress. Changes in primary electorates are driven for the most part by sorting of voters by ideology and partisanship, although there is also some increase in participation by those at the ideological extremes relative to moderates. Regional patterns are consistent with the role of the Southern realignment in clarifying party positions, leading to partisan sorting in the South and then the non-South. The resulting party sorting caused primary elections to be more polarized. Our results imply that polarized primary elections may have been an important input into the polarization of Congress, and that research should continue on this potentially important relationship. The findings also suggest that efforts to change primary electorates through institutional reforms that change turnout patterns may be of secondary importance compared to the sorting of citizens

into primary contests that match their preferences.

Theory

In what follows, we trace out a theory connecting Southern realignment, party sorting, and the polarization of party primary electorates. We draw from other sources and suggest how nominating contests and the fall of the Solid South may be more related to congressional polarization than is commonly considered before proceeding to our evidence.

The battle over civil rights in the 1960s transformed the American South from a single-party to a two-party system. President Kennedy and President Johnson placed the Democratic Party firmly on the side of the Civil Rights movement and against segregation, culminating in the Civil Rights Act of 1964 and Voting Rights Act of 1965. This prompted segregationist Senator Strom Thurmond's party switch from Democrat to Republican, and coincided with Republican Barry Goldwater's presidential bid on a platform that opposed federal intervention for civil rights in 1964.³ In 1950, 95% of members of Congress from the South were Democrats. By 1970, this figure was 72% and by 2015, only 28% of Southern members of Congress were Democrats.

Before this transformation, Republican nominations were of little relevance to Southern politics because Republicans were thought to have almost no chance of winning the general election. (Key, 1949, p. 277) said that the Republican Party in the South "scarcely deserves the name of party. It wavers somewhere between an esoteric cult on the order of a lodge and a conspiracy for plunder in accord with the accepted customs of our politics." In the 1960s, however, as Republicans adopted stances of opposition or ambivalence to civil rights while non-Southern Democrats stood firmly in favor, the Republican Party became a viable option for Southern votes. As it became viable, Republican primaries became relevant for Southern elections. Gerber, Huber, and Washington (2010) show that participating in closed primary elections can have a causal effect on subsequent behavior and party identification, which implies that participation in these Republican primaries had a lasting effect on individual Southern voter behavior.

³ Carmines and Stimson (1989) argue that the 1964 presidential election, in particular, was central to the transformation of party politics.

We argue that conservative Democrats were the first logical participants in Southern Republican primaries, and that as these voters began to participate in Republican nominations, this pattern established a new sorting of ideology and party in the South. While civil rights was an important catalyst, we expect that early participants in Republican primaries were for the most part across-the-board conservatives. Imagine that conservative Southern whites varied in their non-race economic conservatism. Who would have been the first to jump the Democratic ship to vote Republican despite the longstanding Democratic allegiance of Southern whites? We argue the first to jump were economic conservatives due to already-shared preferences with the economically more conservative non-Southern Republican Party.⁴ Thus, the first Southern participants in Republican primaries were those who were both racially conservative and economically conservative, establishing that grouping of policy preferences for subsequent Republican nominating contests.

As Southern conservatives moved to the Republican Party for both primary and general elections, those who continued to participate in Democratic primaries were those more attracted to the economic policies of the national Democratic Party. This sorting of the Southern electorate likely had two effects. First, it changed perceptions of what it meant to be a Southern Republican or Southern Democrat. Republicans were now conservatives rather than simply a fringe group and Democrats were liberals rather than the party of the South. These perceptions were likely reinforced by increasing participation of African Americans in politics as part of the Democratic Party (see for example, Fiorina and Abrams, 2012, p. 106-113).

Secondly, these primary elections may have generated more polarized members of Congress over time, particularly among Democrats. Southern Democrats had previously made up the moderate wing of the Democratic Party. As McCarty, Poole, and Rosenthal (2006, Fig. 2.3) show, Southern Democrats slowly became more liberal over the course of the 1960s and 70s. This may be partially accounted for by the more liberal primary electorate in the South, which had lost

⁴ Carmines and Stimson (1989, p. 190) allude to this possibility in suggesting that racial conservatism was an adaptation of “generalized conservatism” and not an adaptation of racism or segregation. V.O. Key (1949, p. 385) wrote, “On nonrace matters, southern spokesmen on the national scene, popular impression to the contrary notwithstanding, often disagree among themselves. These differences are often traceable to the fact that the party contains within itself groups of citizens who would, under other circumstances, be divided among two parties.”

conservative participants to Republican primaries.

In part due to the direct effect of more liberal primary electorates and party identifiers, and in part due to the indirect effect of more liberal politicians, primary polarization solidified the moderate-to-liberal reputation of the Democratic Party. This then clarified for conservative voters both inside and outside of the South that the Republican Party was the better fit and clarified to liberals that the Democratic Party was the better fit (Levendusky, 2009*a*). Party sorting nationwide reinforced the polarization that was initiated by the Southern realignment. As conservatives became Republicans and liberals became Democrats, in both the South and the non-South, primary electorates across the country became more polarized.

Note that this theory could help explain how primary elections could be an important component of congressional polarization yet empirical studies find little influence of the incidence (e.g., Hirano et al., 2010) or openness (e.g. McGhee et al., 2014) of primaries. We argue that it is not the presence of a primary or the rules governing participation by themselves that matter. Rather, the combination of these two features matter when primary electorates are sorted by party and ideology.

In the remainder of the essay, we show that the patterns we have just described are born out when we look to trends in the policy preferences of primary voters. In particular, primary electorates polarize over time, and this polarization appears due more to sorting than to changes in participation. Southern primary electorates diverge prior to non-Southern primary electorates followed by the two polarizing together after Southern primaries have sorted.

Design

A direct measure of polarization in the public requires estimates of the views of individual voters. The public opinion survey provides an opportunity to make such estimates, but we need to choose which public opinion questions to consider and how to summarize them. These choices are further complicated by the fact that very few public opinion polls ask the same questions over long stretches of time, making comparison of views over time challenging.

Hill and Tausanovitch (2015) solves the problem of changing sets of survey questions over time with a holistic measure of ideology, inspired by Poole and Rosenthal's (2000) NOMINATE. The measure draws on the 1956 through 2012 American National Election Studies (American National Election Studies, 2014). Rather than select a subset of years and policy questions, Hill and Tausanovitch (2015) use 86 questions that were each asked in multiple years of the survey and summarize the responses with a multinomial item-response theory (IRT) model. This model assumes that the policy responses are structured by a latent ideological dimension to estimate each respondent's ideological position. The model assumes that responses to the same question in different years are comparable, which allows over-time comparisons of distributions of respondent preferences.⁵ Hill and Tausanovitch (2015) use a Bayesian approach, making it possible to conduct correct inferences about quantities other than the estimates themselves. For instance, it is straightforward to conduct inferences with respect to the distances and variances that correspond to common definitions of polarization.⁶

We use these estimates to summarize the policy preferences of primary voters over time. The set of voters who turned out in primary elections is determined by answers to questions on primary participation from various years of the ANES, with wording varying by year.⁷ Some years ask about participation in congressional primary elections, other years about participation in presidential primary elections, and we identified questions to measure primary participation of one kind or the other in twelve surveys from 1958 to 2012.⁸ To determine which party primary the voter participated in, we use either the voter's report of which primary, or infer party from the presidential primary candidate voted for (2008 and 2012).

⁵ Hill and Tausanovitch (2015) show in an Appendix that when these responses are assumed to be comparable for only short lengths of time, results are similar.

⁶ The model itself is similar to Poole and Rosenthal's (2000) W-NOMINATE or Clinton, Jackman, and Rivers's (2004) IDEAL. An important difference is that the multinomial link function allows the model to use all of the response categories to inform the respondents' latent ideology, which is valuable for many of the survey questions that have more than two responses.

⁷ For example, "We find that a lot of people don't pay much attention to primary elections. Do you remember whether or not you voted in the primary election for congressman this year?" (1958) or "Your state held a primary election on (DATE). Did you vote in that election, or were you unable to do so?" (1980).

⁸ Turnout in congressional primaries was asked in 1958, 1964, 1966, and 1978, with the remaining presidential. Primary participation was not asked of half of the 1972 sample and 172 cases of the 1992 sample who were given the form 2 questionnaire in those years. We limit analysis to form 1 respondents.

A caveat to our analysis is that it is largely based on self-reported primary turnout.⁹ Past work has shown that over-reports of turnout can be consequential for substantive research conclusions (Vavreck et al., 2007). However, we leverage one year from roughly the middle of our time series in which we have both validated and self-reported primary turnout in order to test for relevant biases and we find that our substantive conclusions are unchanged (see Appendix Section A).

Results

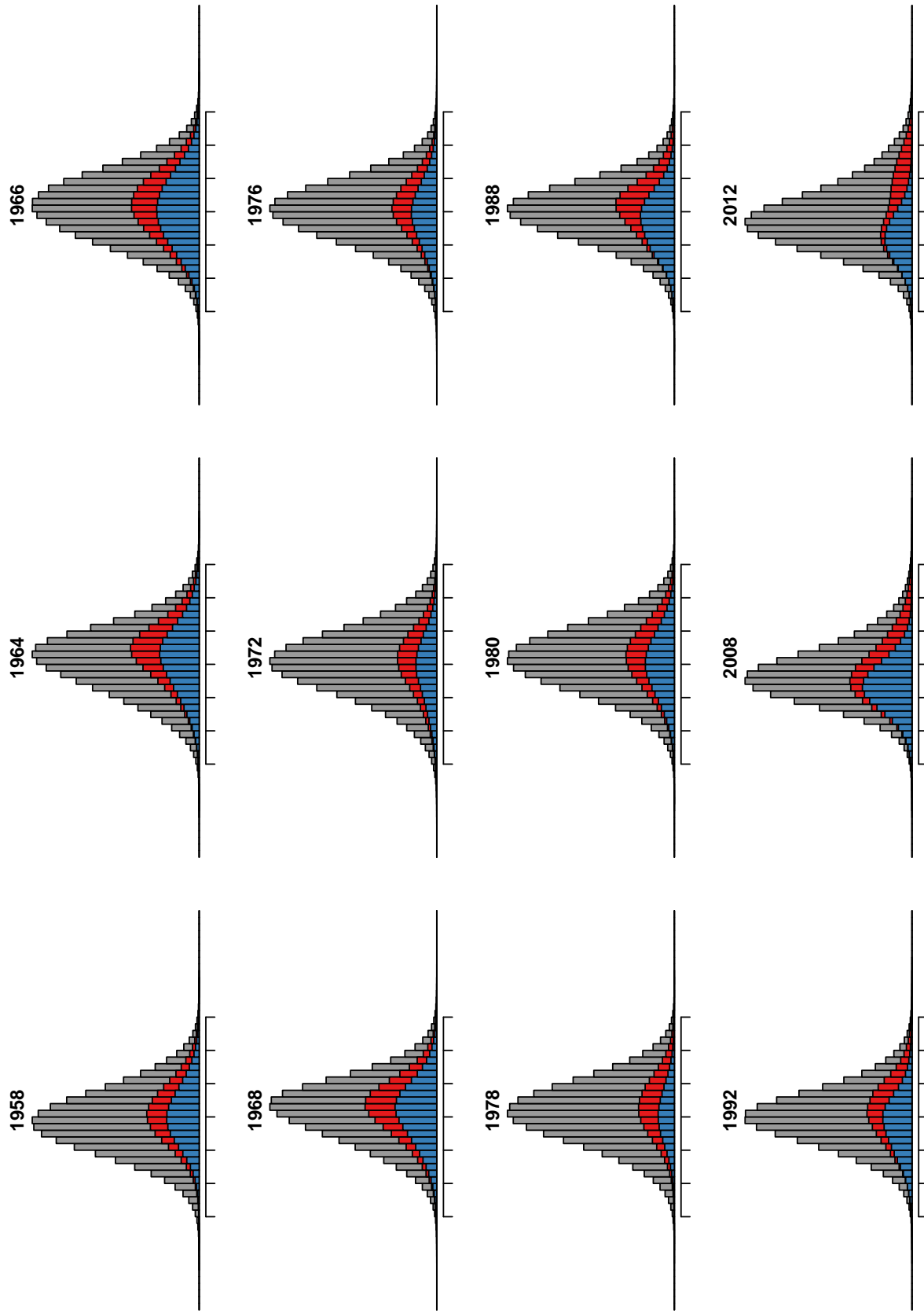
In Figure 1, we present the distribution of estimated ideology for each year in which the ANES asks respondents about primary turnout. The total height of each bar corresponds to the number of all respondents who had an ideology score in that bin (ideology varies from liberal in the negative direction to conservative in the positive direction with mean zero and unit variance across all years). The grey portion of each bar represents the proportion of respondents at each ideological position who did not vote in any primary. The red portion of each bar represents those that turned out in a Republican primary, and the blue portion those who voted in a Democratic primary.

There is little evidence of polarization of the overall distribution of ideology during this time period (see also Hill and Tausanovitch, 2015). While there are small changes in variance, these are of little substantive importance and not statistically significant. Readers may be surprised to see that the red and blue portions of the distributions are often centered close to one another, particularly in the early years of the ANES. In these early years, the parties in the electorate had not yet sorted effectively by policy ideology. Over the second half of the 20th century, voters became more aware of the policy stances of the respective parties, and have demonstrated a slow but consistent tendency to join the party that better matches their policy positions (Levendusky, 2009b).

In contrast to the public as a whole, we find notable polarization by party primary electorates over this time period. Figure 2 presents the divergence of party primary ideology by year. The y-axis measures the distance between the median ideology of primary voters for each party in each

⁹ The records from 1978 are validated to administrative records with party of primary the party of registration for the validated voter, question numbers V781411 and V781401.

Figure 1: Ideology of Americans and primary voters, 1958-2012



Note: The full histogram represents the policy ideology for all respondents in that year from the American National Election Studies. The interior bar heights represent the distributions of ideology among voters in Democratic (blue) and Republican (red) primaries in that year. Years limited to ANES surveys with primary turnout records.

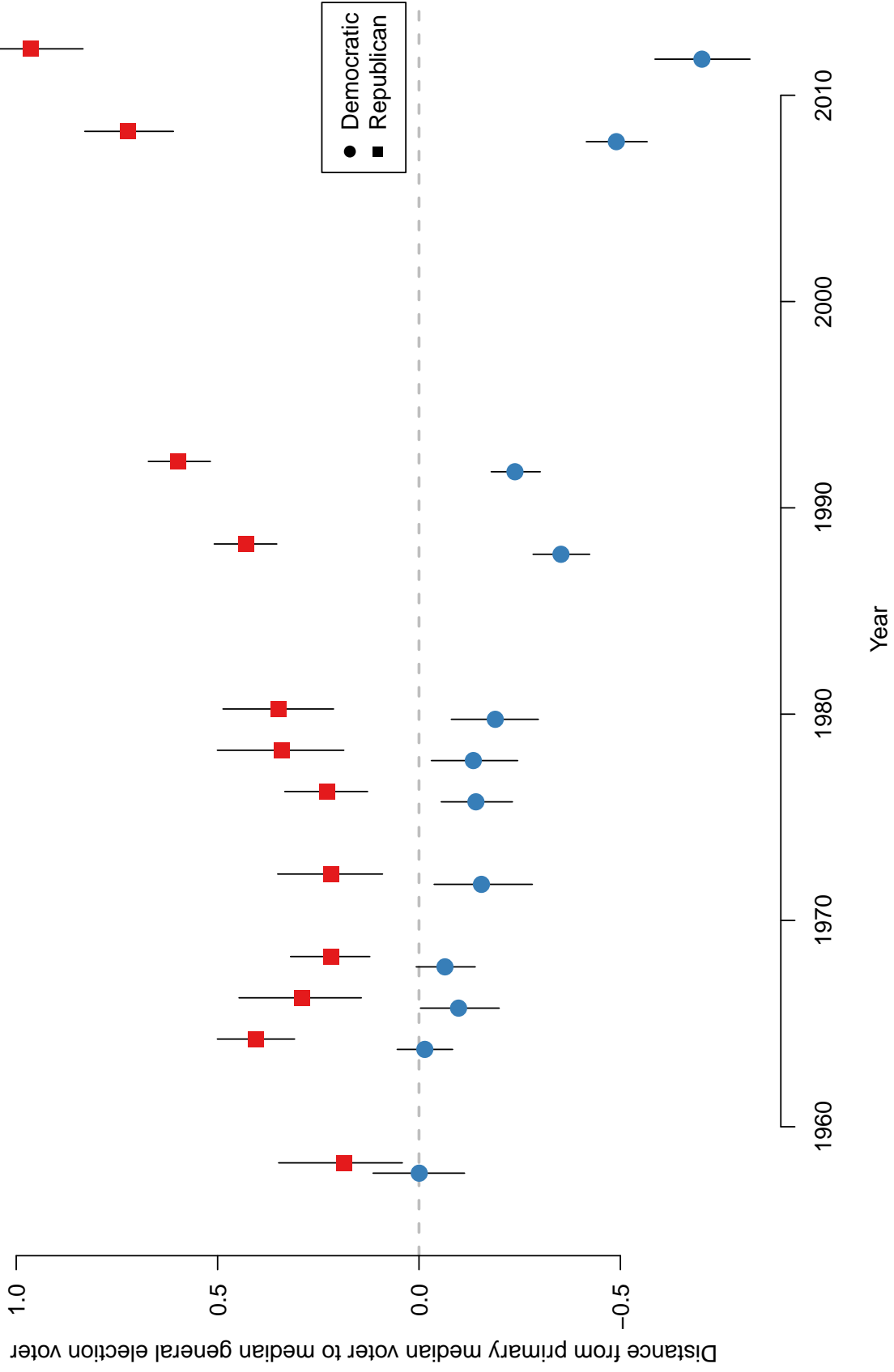
year from the median ideology of general election voters in that year, along with posterior 95% credible intervals. The dashed horizontal line represents zero, which would indicate the primary median equivalent to the general median. The squares and circles indicate the medians of the Republican and Democratic primary electorates, respectively.

Primary electorates polarized during this time period. The trends in polarization among primary electorates looks very similar to the pattern of polarization in Congress. In the 1950s, the median Democratic primary voter was indistinguishable from the median voter in the public as a whole and, in fact, the credible intervals of Democratic and Republican medians overlap. The posterior median has Republican primary electorates more conservative than the general median even in 1958, but by less than one quarter of a standard deviation. By 1980, the Democrats were one quarter of a standard deviation to the left of the median general voter and the Republicans were one third of a standard deviation to the right. The overall distance grew from 1980 onward. In 2012, the two party primary electorates were notably more distinct, with the median Republican primary voter almost a full standard deviation more conservative than the median general election voter, and the median Democratic primary voter more than half a standard deviation more liberal.¹⁰

Why did the median ideology of Democratic and Republican primary electorates diverge over this time period? Part of the story is a change in the relationship between ideology and turnout. From 1958 to about 1980, the rate of participation in primary elections was relatively constant across the distribution of ideology. Centrists were no less likely to participate in nominating contests than those in the tails. Beginning in 1988 in our series, the rate of participation in primaries began to increase for individuals in the tails of the distribution relative to those in the center. Figure 3 shows the rate of turnout in primary elections for each decile of estimated ideology in that year. “1” indicates the 0-10% decile, or the most liberal 10% of the population in that year, and “10” indicates the 90-100% decile, or the most conservative 10% in that year, with deciles 2 through 9 moving from liberal to conservative. The y-axis is the rate of turnout among members of that decile.

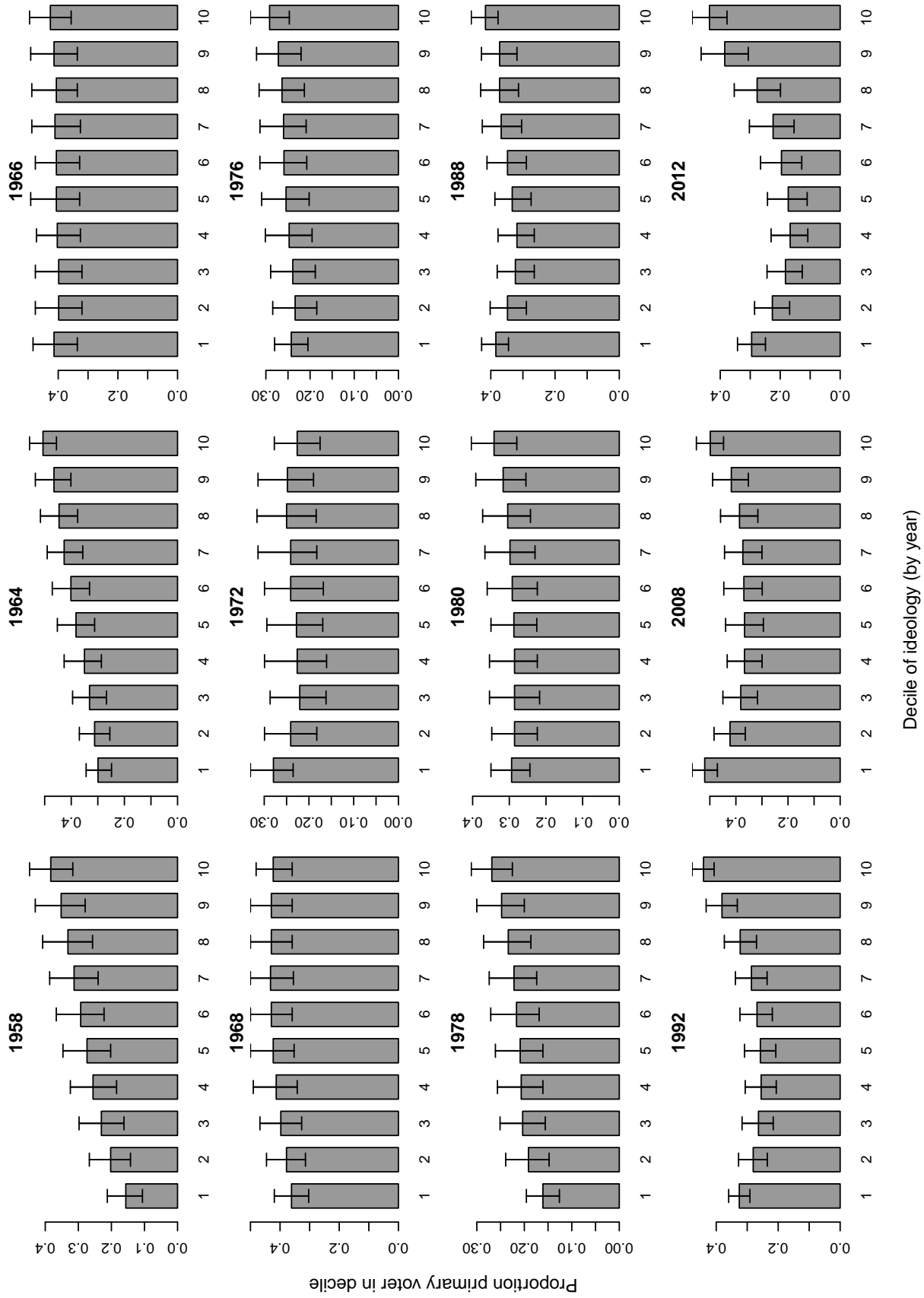
¹⁰ In Appendix Section B, we explore whether sorting among primary voters is greater than sorting among partisan identifiers, finding some evidence in support of greater sorting of primary voters.

Figure 2: Polarization in primary electorate ideology, 1958-2012



Note: Each point represents the distance from the median voter in that party's primary electorate to the median voter in the general electorate in that year. Lines extend to 95 percent credible intervals. Years limited to those with primary turnout records.

Figure 3: Rate of primary turnout by decile of ideology, 1958-2012



Note: Each bar height represents the proportion of voters within that year's decile of ideology (1=most liberal 10%=most conservative 10% in that year) who voted in a primary election in that year. Error bars extend to 95 percent credible intervals.

For most of this period, rate of turnout was either unrelated to ideology (a flat distribution) or increased towards the conservative side. In 1958, for instance, there was a marked difference between turnout rates of the most liberal decile, about 15%, and the turnout rate of the highest decile, about 35%, with a smooth upward trend. There were similar relationships in 1964 and 1978. In contrast, there was virtually no relationship between ideology and turnout in 1966, 1968, 1972, 1976, or 1980. The bars are for the most part statistically indistinguishable even in 1988 with a slight U-shape, a hint of what was to come. From 1992 onward, respondents in the outlying deciles were more likely to vote in primary election. This was especially true in 2012.

Although Figure 3 documents a change in the relationship between ideology and turnout, this trend is not sufficient to explain the polarization by party primary in Figure 2. In addition to change in the turnout-ideology relationship, ideology and the party primary that voters choose to attend have sorted into greater alignment. This result is presented in Figure 4, which breaks turnout by decile for each party primary (the sum of the two party bars in each decile in Figure 4 equals the height of the bar in Figure 3). Blue bars on the left represent the proportion of individuals in that decile who voted in a Democratic primary in that year, and red bars to the right represent the proportion of individuals in that decile who voted in a Republican primary in that year.

In 1958, the rate of turnout increased with conservatism in *both* party primaries, Democrat and Republican. In fact, for the first 20 or so years of this time period, there was only a limited relationship between ideology and the choice of party primary. Substantial numbers of conservatives voted in Democratic primaries and substantial numbers of liberals voted in Republican primaries, even as late as 1980. Until 1978, conservatives were more likely to vote in Democratic primaries than in Republican primaries. In the mid 1970s through 1980, liberals became less likely to participate in Republican primaries and conservatives became less likely to participate in Democratic primaries, and by 1988 there were few voters in Republican primaries in the bottom three most liberal deciles. Modest numbers of conservatives continued to vote in Democratic primaries through 2008. In 2012, Democratic primaries exhibited a mirror image of the pattern that had characterized Republican primaries since 1988 forward, with citizens in the four most conservative deciles

of ideology participating in Democratic primaries at a rate approaching zero.

Figure 4 resolves the apparent contradiction that primary electorates have become more polarized but the electorate as a whole has not. In the 1950s and 1960s, there was a limited relationship between ideology and primary participation, particularly in Democratic primaries. While the Republican primary was somewhat more skewed, a strong contingent of liberals participated in Republican primaries and large numbers of conservatives participated in Democratic primaries. Over the course of the latter third of the 20th century, however, conservatives sorted into the Republican primary, liberals sorted into the Democratic primary, and centrists began turning out at relatively lower rates in primary elections than individuals in the tails.

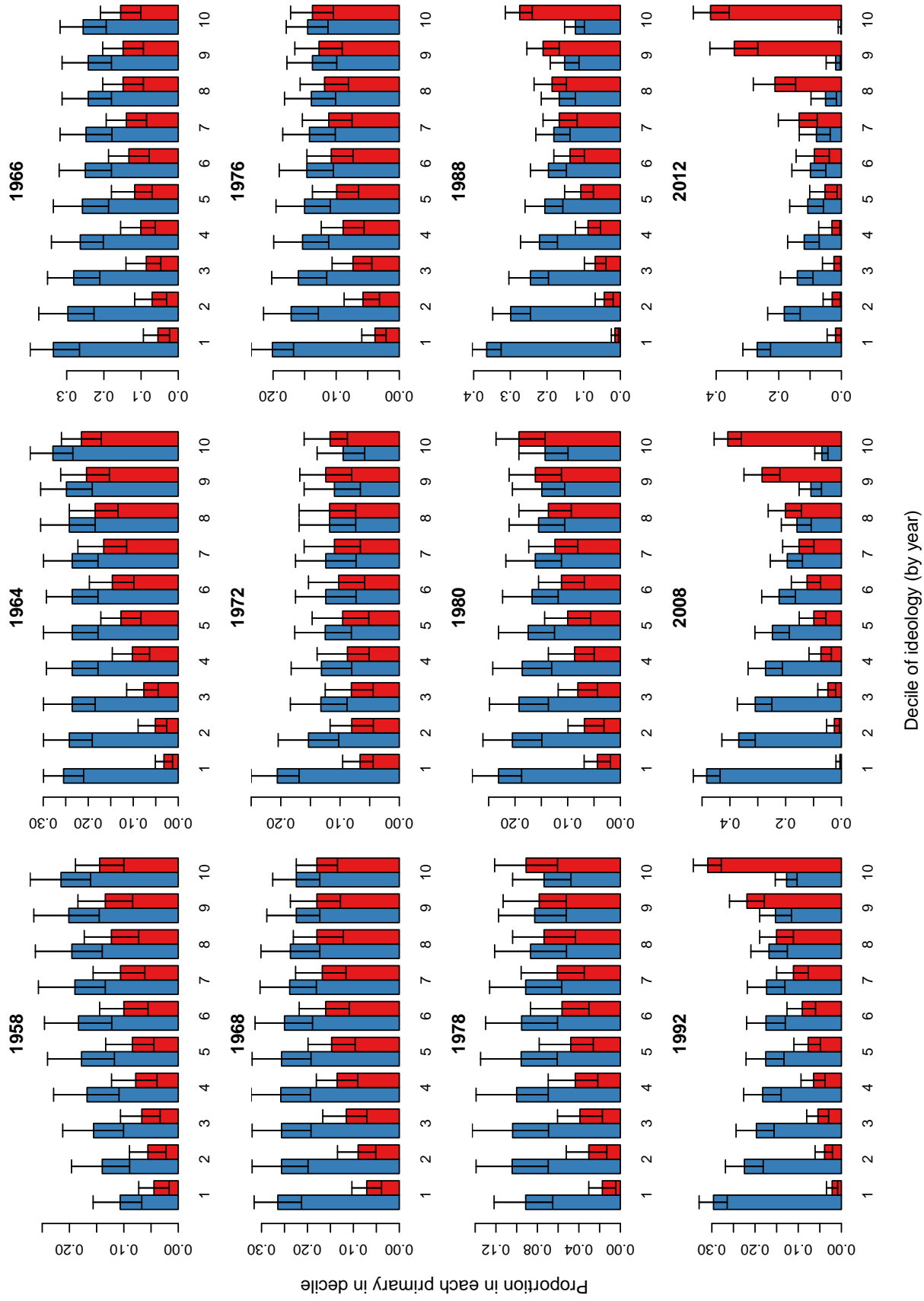
Evaluating the importance of each mechanism

To benchmark how much of the polarization of primary electorates from 1958 to 2012 is due to party sorting versus changes in rates of primary participation by ideology, we simulate two counterfactual states of primary participation in 2012. First, to measure the effect of sorting only (excluding the influence of changes in turnout), we apply the observed rate of primary participation by decile of ideology in 1958 to 2012 respondents with their 2012 ideology. Second, to measure the effect of turnout only (excluding the influence of party sorting), we apply the observed rate of choosing each party primary in each ideology decile observed from 1958 to the primary voters in 2012 given their 2012 decile.

Figure 5 presents the change in polarization from 1958 to 2012 along with results of simulated polarization under the two counterfactual scenarios. We use a standard measure of polarization, the distance between the median Democratic primary voter and the median Republican primary voter. Recall that the ideal points of all respondents to the whole time series from 1956 to 2012 are normalized to mean zero and unit variance (Hill and Tausanovitch, 2015), so the height of the first bar indicates that the median Democratic and Republican primary voters in 1958 were one fifth (0.2) of a standard deviation apart. In 2012, the two median voters were 1.7 standard deviations apart, a more than eight-fold increase in polarization.

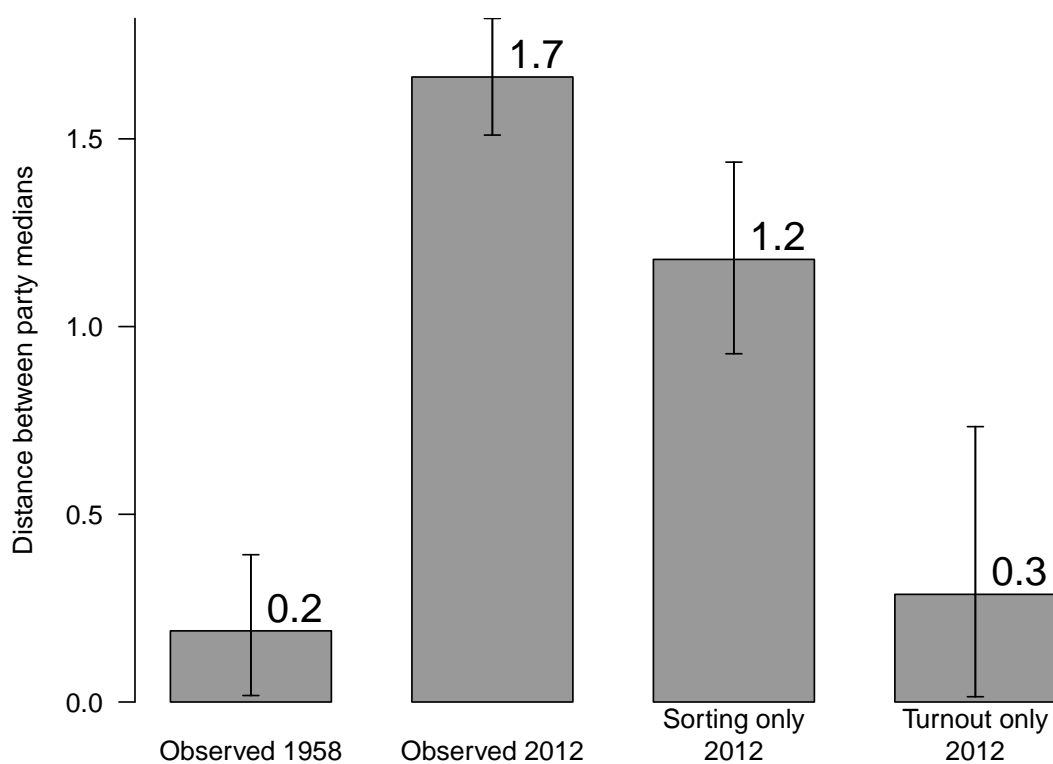
The third bar represents our estimate of polarization in 2012 if 2012 respondents had sorted into

Figure 4: Rate of turnout by party primary and decile of ideology, 1958-2012



Note: Each bar height represents the proportion of voters within that year's decile of ideology (1=most liberal 10%, 10=most conservative 10% in that year) who voted in a Democratic (left bars) or Republican (right bars) primary election in that year. Error bars extend to 95 percent credible intervals.

Figure 5: Counterfactual polarization with only sorting or only change in turnout



Note: The first two bars represent observed polarization in 1958 and 2012, as measured by the distance between median Democratic and Republican primary voters. The third and fourth bars are simulated polarization in 2012 with sorting only and with changes to turnout only. The figure shows that most polarization is due to party sorting. Bars extend to 95 percent posterior credible intervals.

party by their ideology as observed but if the relationship between primary turnout and ideology was the same as it had been in 1958. This simulates the effect of party sorting alone on change in polarization during this time period.¹¹ Our median estimate is that the distance between the two party primary medians in 2012 with only party sorting would have been 1.2 units, a bit more than one standard deviation but 42 percent less polarization than we actually observe in 2012. Nonetheless, this estimate is six times greater than the polarization observed in 1958, suggesting that party sorting has polarized primary electorates to a substantial degree.

The fourth bar represents polarization in 2012 if 2012 respondents had not sorted into party by ideology more than in 1958, but if the relationship between primary participation and ideology was as observed in 2012. This simulates the effect of change in who turns out in primary elections – i.e. where in the distribution of ideology primary voters come from – alone on change in polarization.¹² We find that change in turnout is a smaller contributor to the change in polarization than party sorting, with a posterior median estimate of the distance between the party medians of 0.3 units, one third of a standard deviation. Even so, this level of polarization is 1.5 times that of the observed polarization in 1958, suggesting that change in who turns out in primary elections has increased the polarization of primary electorates by 50 percent.

In sum, our simulations suggest that polarization of primary electorates in 2012 is about six times greater than in 1958 due to the sorting of primary voters into party primaries by ideology, and about 50 percent greater due to change in who participates in primary elections. The sorting in the electorate of ideology to party appears to be a driving factor in the polarization of primary electorates.

¹¹ To estimate, we calculate the rate of primary participation by (across-year) ideology decile from 1958, then sample primary voters at random from 2012 respondents given their ideology decile and the 1958 rate of primary participation and assign them to a party primary based on their 2012 party identification. We apply this sampling strategy at each posterior iteration, calculate the party medians, and present the posterior median and credible interval of the distance between medians in the figure, which captures both uncertainty in respondent ideology and sampling variability in simulated turnout.

¹² To estimate, we calculate the rate of participation in each party primary in each (across-year) decile of ideology in 1958, then sample a counterfactual party primary for each 2012 respondent given their ideology decile and the 1958 rate of participation in each primary. We then used observed 2012 primary turnout to describe the primary voters. We sample party primary at each posterior iteration, calculate the party medians, and present the posterior median and credible interval of the distance between medians in the figure.

Sorting of primary electorates in the American South

To this point we have analyzed the entire country as a whole. There is reason to believe, however, that the dynamics of primary turnout differed substantially in the South (Key, 1949). Prior to the Civil Rights era of the 1960s, the Democratic Party was dominant in what was then known as the Solid South, and African Americans were largely blocked from participating in elections through coercion and intimidation.¹³ This meant that participation in Republican primaries was almost non-existent and that white Southerners were Democrats. In contrast, in much of the rest of the country party competition was vigorous and there were recognizable differences between the parties on support for the New Deal and economic policy.

Figure 6 replicates Figure 2 with separate panels for the South and non-South.¹⁴ In 1958, Democratic primary voters in the South were ideologically conservative relative to the median voter in the (nationwide) general electorate (as indicated by the posterior median and credible interval greater than zero). Estimates are uncertain about the median of the small number of voters in Republican primaries, as represented by the very wide credible interval. Following passage of the Civil Rights Act of 1964 and the party switch of Senator Thurmond, in 1964 there were enough Southerners voting in Republican primaries to estimate their median ideology with better precision. During the 1960s, Republican primary electorates in the South were slightly more conservative than Democratic primary electorates, suggesting that conservatives were the first to defect from the Democratic Party. As the Democrats solidified their position as proponents of civil rights, more and more conservative Southerners defected to the Republicans so that by 1980 the Republicans were clearly the party of the right, and the Democrats center-left. Not until 1978, however, were the medians of the two primary electorates statistically distinct. Beginning in 1988, primary voters in Democratic primaries in the South were similar ideologically to voters participating in Democratic

¹³ In fact, until the 1944 Supreme Court ruling in *Smith v. Allwhite*, white primaries that formally excluded non-white citizens from participation were legally held in many Southern states.

¹⁴ Following the coding in the ANES, the set of states coded as “South” here are Alabama, Arkansas, Delaware, Washington, D.C., Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

primaries in the rest of the country.¹⁵

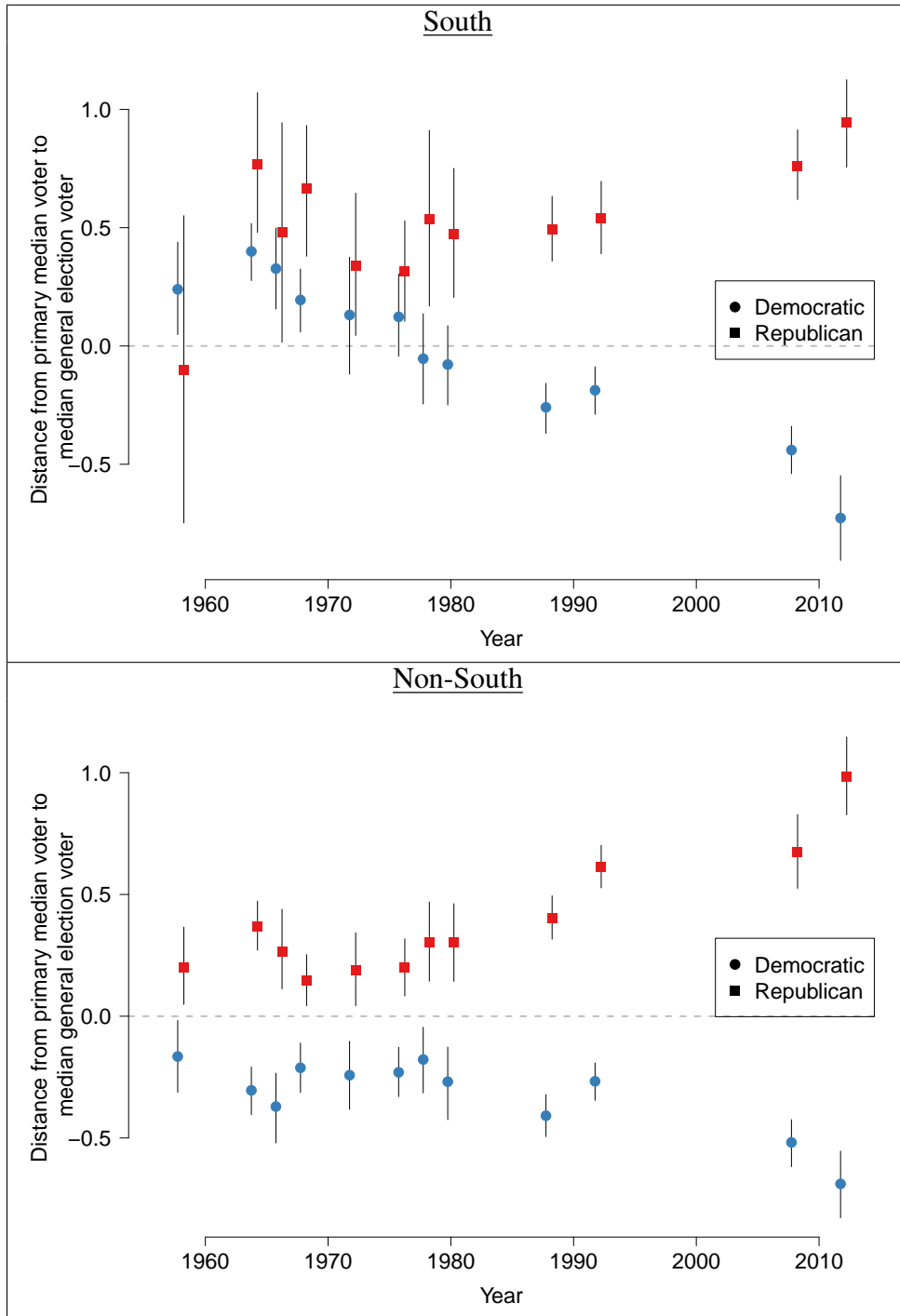
In the rest of the country (bottom frame), Democratic and Republican primary electorates were distinct even in 1958. Republican primary voters were more conservative and Democratic primary voters more liberal. This alignment was relatively stable through the 1980s, although the difference was much smaller than it would become. Beginning in 1988 and 1992, the median ideology in the two electorates begins to diverge, mirroring the divergence begun in the South a decade earlier. By 1988, across the country, primary electorates represented two distinct ideological coalitions, one liberal and one conservative, with divergence continuing in 2008 and 2012.

We next evaluate the nature of the divergence in primary medians. Figure 7 replicates Figure 4, showing turnout by party for each decile of the liberal-conservative scale, for the South and non-South. Note that deciles are defined for the entire country, not by region, so the x-axis is comparable across the two frames. Here we see that turnout in Republican primaries in the South was negligible in 1958, and remained small for a decade. Throughout the 1960s, conservatives in the South were more likely to turn out in Democratic primaries than liberals. However, as more Southerners began to participate in Republican primaries during the 1960s and 1970s, these new participants overwhelmingly come from the conservative part of the ideological distribution. Although 1976 and 1978 appear to be an exception, perhaps due to the election of President Jimmy Carter, a Democrat from Georgia, by 1980 there is a clear tendency for participation in Republican primaries to increase with voter conservatism in the South. Democratic primaries remained ideologically heterogeneous. Between 1992 and 2008, Democratic primaries became increasingly populated by more liberal voters and fewer conservatives, with conservatives increasingly likely to participate in the Republican nomination.

In the non-South (lower frame), the Democratic primary electorate was skewed left already in 1964 and the Republican electorate skewed right as early as 1958. This pattern continued, albeit with some year-to-year fluctuations. Slowly, the diversity of each party eroded, with 1988 being a notable first case of the modern system, with few conservatives voting in Democratic primaries

¹⁵ In Appendix Section B, we explore whether sorting among primary voters is greater than sorting among partisan identifiers, by region.

Figure 6: Polarization in primary electorate ideology by region, 1958-2012



Note: Each point represents the distance from the median voter in that party's primary electorate to the median voter in the general electorate in that year. The top panel shows estimates for states in the South (AL, AR, DE, D.C., FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, and WV) and the bottom the remainder.

and few liberals voting in Republican primaries.

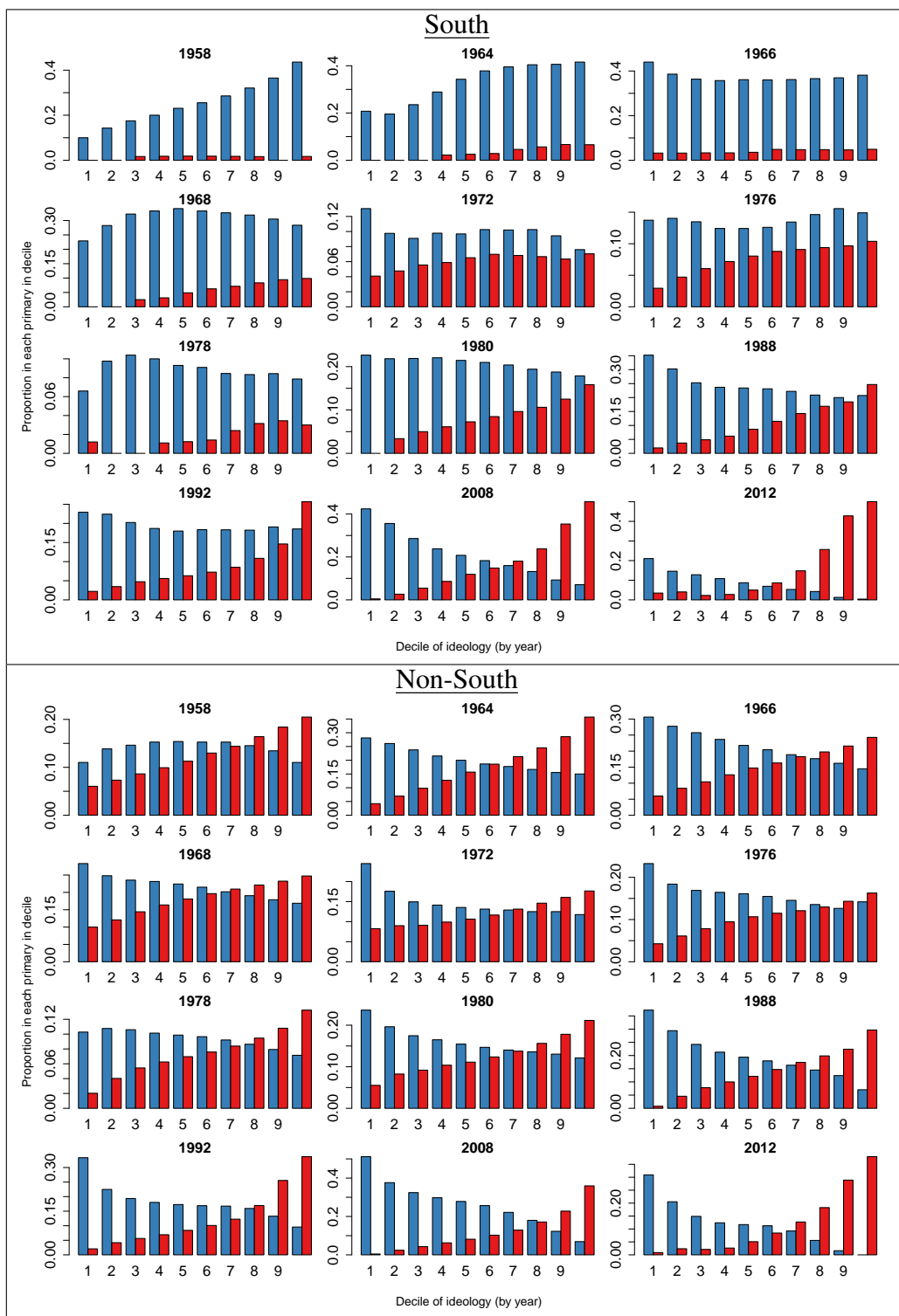
Over this entire period, realignment in the South seems to have led to a viable and far more conservative Republican Party as defined by participation in nominating elections. Following this trend in the South, conservatives in the non-South sorted more thoroughly into the Republican Party, and liberals sorted more thoroughly into the Democratic Party. This evidence is consistent with existing research on the sorting caused by the Southern realignment (Carmines and Stimson, 1980), as well as the notion that clearer party platforms assisted voters in sorting into the “correct” party (Levendusky, 2010, 2009a). Once a Republican primary emerged in the South that was dominated by conservatives, there was a clear incentive for conservative candidates to run in Republican primaries. As conservative voters and candidates moved from Democratic primaries to Republican primaries in the South, the remaining Democratic coalition was more liberal. As the Democratic and Republican parties became more homogenous, they sent a clearer signal to voters in the rest of the country. This sequence of realignment and then sorting explains why voters in the non-South, who were already somewhat sorted before the changes in the South, became further sorted and more distinct following the Southern realignment.

Conclusion

We have shown that primary electorates have sorted by political party over the last half century and that this sorting mirrors the dramatic changes to national politics. The set of people who turn out in Republican primaries are now more conservative than before, and the set of people who turn out in Democratic primaries are more liberal. This occurred because of (a) an increase in the correspondence between extreme views and the likelihood of participating in any primary, and (b) an increase in the correspondence between policy views and attendance of the primary of the party that matches those ideological views. The latter factor appears to be the driving mechanism.

An important part of this pattern is party sorting in the South. As the Solid South eroded and the Republican Party became a viable political entity, Southern conservatives began to vote in Republican primaries. We show that Democratic primary voters correspondingly became more

Figure 7: Rate of turnout by party primary and decile of ideology and region, 1958-2012



Note: Each bar height represents the proportion of voters within that year's decile of ideology (1=most liberal 10%, 10=most conservative 10% in that year) who voted in a Democratic (left bars) or Republican (right bars) primary election in that year. The top panel shows estimates for states in the South (AL, AR, DE, D.C., FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, and WV) and the bottom the remainder.

liberal as a group as conservatives moved their participation to Republican primaries. We argue that this change clarified the respective party platforms, leading to party sorting throughout the country as in the argument of Levendusky (2009a). We show that this sorting occurred first and more dramatically in Southern primary elections, and then secondly in the non-South.

A notable feature of Figure 4 is that liberals have eschewed Republican primaries since the 1950s, and they have rapidly abandoned it altogether since the 1980s. In contrast, conservatives almost matched liberals in Democratic primaries in the middle of the century, and maintained a substantial presence through 1992. In 2008 their numbers had dwindled, but only in 2012 did they approach the near non-existence that we have seen for liberals in Republican primaries since 1980. This trend could help explain what has been to date an asymmetry in polarization, where congressional Republicans have moved right faster than liberals have moved left (Voteview Blog, 2015; Poole and Rosenthal, 2000).

However, if polarized primaries go along with congressional polarization, then the changes in Democratic primary electorates evident in 2008 and 2012 may foreshadow further moves to the left by the Democratic Party. One manifestation of this trend might be the relative success of Bernie Sanders, a self-identified socialist and fringe figure in the Democratic Party, in the 2016 Democratic presidential primary. Already there has been substantial enthusiasm for a presidential run by Elizabeth Warren, the most liberal member of the Senate according to DW-NOMINATE.¹⁶ Asymmetric polarization may soon become symmetric if the trends of 2008 and 2012 Democratic primaries continue going forward.

Regarding the literature on primary elections and polarization, much of this work has focused on the institutional arrangement of nominating contests and the assumption that more open rules change who participates in primary elections. The decomposition of the polarization of primary electorates in Figure 5 suggests that changes in who turns out are less of an influence on primary ideology than the sorting of voter preferences into the party primary that they attend. While more open institutions may invite participation by more voters, if party sorting leads to more homoge-

¹⁶ See http://www.voteview.com/Weekly_Constant_Space_DW-NOMINATE_Scores.htm. Accessed February 22, 2016.

nous party coalitions with members motivated to participate in the nomination process of their party, rules may not counteract these individual preferences.

It remains to be tested whether polarized primaries actually explain congressional polarization, but the results here demonstrate that this question is worth further investigation. The data we use here is aggregated up to the level of regions and so is not well suited to identify changes in behavior of individual legislators. Future work could attempt to characterize features of primary electorates at the district level and relate them to changes in the behavior of congressional representatives. Our evidence here suggests there have been important changes in the voters who participate in nominating contests, and that more work is needed to understand the influence of these changes and their relationship to congressional outcomes.

References

- American National Election Studies. 2014. *The American National Election Studies (www.electionstudies.org) TIME SERIES CUMULATIVE DATA FILE [dataset]*. Stanford, CA: Stanford University and the University of Michigan [producers and distributors].
- Bonica, Adam, Nolan McCarty, Keith T Poole, and Howard Rosenthal. 2013. "Why hasn't democracy slowed rising inequality?" *The Journal of Economic Perspectives* 27(3): 103–123.
- Brady, David W, Hahrie Han, and Jeremy C Pope. 2007. "Primary elections and candidate ideology: Out of step with the primary electorate?" *Legislative Studies Quarterly* 32(1): 79–105.
- Bullock, Will, and Joshua D Clinton. 2011. "More a molehill than a mountain: the effects of the blanket primary on elected officials behavior from California." *The Journal of Politics* 73(03): 915–930.
- Carmines, Edward G, and James A Stimson. 1980. "The two faces of issue voting." *American Political Science Review* 74(01): 78–91.
- Carmines, Edward G, and James A Stimson. 1989. *Issue evolution: Race and the transformation of American politics*. Princeton University Press.
- Clinton, Joshua, Simon Jackman, and Douglas Rivers. 2004. "The statistical analysis of roll call data." *American Political Science Review* 98(02): 355–370.
- Fiorina, Morris P, and Samuel J Abrams. 2008. "Political polarization in the American public." *Annual Review of Political Science* 11: 563–588.
- Fiorina, Morris P, Samuel A Abrams, and Jeremy C Pope. 2008. "Polarization in the American public: Misconceptions and misreadings." *The Journal of Politics* 70(02): 556–560.

- Fiorina, Morris P, Samuel J Abrams, and Jeremy Pope. 2005. *Culture war?* Pearson Longman New York.
- Fiorina, M.P., and S.J. Abrams. 2012. *Disconnect: The Breakdown of Representation in American Politics*. Julian J. Rothbaum Distinguished Lecture Series University of Oklahoma Press.
- Frymer, Paul. 2011. "Debating the Causes of Party Polarization in America." *California Law Review* 99(2): 335–349.
- Gerber, Alan S., Gregory A. Huber, and Ebonya Washington. 2010. "Party Affiliation, Partisanship, and Political Beliefs: A Field Experiment." *American Political Science Review* 104(4): 720–744.
- Hall, Andrew B. 2015. "What Happens When Extremists Win Primaries?" *American Political Science Review* 109(1): 18–42.
- Hall, Andrew B, and James M Snyder Jr. 2013. Candidate Ideology and Electoral Success. Technical report Working Paper.
- Han, Hahrie, and David W Brady. 2007. "A delayed return to historical norms: Congressional party polarization after the Second World War." *British Journal of Political Science* 37(03): 505–531.
- Hetherington, Marc J. 2009. "Review article: Putting polarization in perspective." *British Journal of Political Science* 39(02): 413–448.
- Hill, Seth J. 2015. "Institution of Nomination and the Policy Ideology of Primary Electorates." *Quarterly Journal of Political Science* 10(4): 461–487.
- Hill, Seth J, and Chris Tausanovitch. 2015. "A Disconnect in Representation? Comparison of Trends in Congressional and Public Polarization." *The Journal of Politics* 77(4): 1058–1075.
- Hirano, Shigeo, James M. Snyder, Jr., Stephen Ansolabehere, and John Mark Hansen. 2010. "Primary Elections and Partisan Polarization in the U.S. Congress." *Quarterly Journal of Political Science* 5: 169–191.
- Jacobson, Gary C. 2012. "The Electoral Origins of Polarized Politics Evidence From the 2010 Cooperative Congressional Election Study." *American Behavioral Scientist* 56(12): 1612–1630.
- Key, V.O. 1949. *Southern Politics in State and Nation*. New York: Knopf.
- Levendusky, Matthew. 2009a. *The partisan sort: How liberals became Democrats and conservatives became Republicans*. University of Chicago Press.
- Levendusky, Matthew S. 2009b. "The Microfoundations of Mass Polarization." *Political Analysis* 17(2): 162–176.
- Levendusky, Matthew S. 2010. "Clearer cues, more consistent voters: A benefit of elite polarization." *Political Behavior* 32(1): 111–131.
- Mann, Thomas E, and Norman J Ornstein. 2013. *It's even worse than it looks: How the American constitutional system collided with the new politics of extremism*. Basic Books.

- McCarty, Nolan, Keith T Poole, and Howard Rosenthal. 2009. "Does gerrymandering cause polarization?" *American Journal of Political Science* 53(3): 666–680.
- McCarty, Nolan M, Keith T Poole, and Howard Rosenthal. 2006. *Polarized America: The dance of ideology and unequal riches*. mit Press Cambridge, MA.
- McGhee, Eric, Seth Masket, Boris Shor, Steven Rogers, and Nolan McCarty. 2014. "A primary cause of partisanship? Nomination systems and legislator ideology." *American Journal of Political Science* 58(2): 337–351.
- Nivola, Pietro S, and David W Brady. 2007. *Red and blue nation?: characteristics and causes of America's polarized politics*. Vol. 1 Brookings Institution Press.
- Poole, Keith T, and Howard Rosenthal. 2000. *Congress: A political-economic history of roll call voting*. Oxford University Press on Demand.
- Sides, John M., Chris Tausanovitch, Christopher Warshaw, and Lynn Vavreck. 2014. "On the Representativeness of Primary Voters." *The Annual Midwestern Political Science Association Conference* .
- Tesler, Michael S. 2016. *Post-Racial or Most-Racial? Race and Politics in the Obama Era*. Chicago: University of Chicago Press.
- Theriault, Sean M. 2006. "Party Polarization in the US Congress Member Replacement and Member Adaptation." *Party Politics* 12(4): 483–503.
- Thomsen, Danielle M. 2014. "Ideological Moderates Won't Run: How Party Fit Matters for Partisan Polarization in Congress." *The Journal of Politics* 76(03): 786–797.
- Vavreck, Lynn et al. 2007. "The exaggerated effects of advertising on turnout: The dangers of self-reports." *Quarterly Journal of Political Science* 2(4): 325–343.
- Voteview Blog, The. 2015. "Polarization Continues Through 2015." <https://voteviewblog.wordpress.com/2015/12/28/polarization-continues-through-2015/>.

Appendix

A Validated versus self-reported primary turnout

One concern with our study of primary turnout is that in all but one case the measure of participation in primary elections, and the measure of in which party primary the voter participated is self-reported. Because of longstanding evidence that citizens over-report turnout, our findings may be influenced by respondents who claim to have voted in one of the party primaries but actually did not. To evaluate if self-reported primary participation influences our conclusions, we use the 1980 version of the ANES, which asked for self-reports of primary turnout and validated the primary turnout of most respondents to administrative records. We show below strong correspondence between the self-report and validated behavior and that differences in median ideology for each party primary and patterns of turnout by ideology decile are highly similar.

The sample for this study are the 1,608 respondents to the 1980 ANES for whom Hill and Tausanovitch (2015) estimated ideology. We exclude the 595 cases where a registration record was not found, who resided in Election Day Registration states, had an address outside of the sampling frame for the validation, or due to other logistical hurdles were not validated, as well as the 224 respondents who resided in states without presidential primaries in 1980.

With regard to report of turnout, among those who self-report primary vote, reside in states with presidential primaries, and were matched to voter file, 70.8 percent had validated record of primary turnout. In contrast, 5.8 percent of those who say they did not vote do have a validated vote. As with the general understanding of general election turnout, there is an over-report of primary turnout relative to what can be verified by administrative records.

Conditional on turning out, few respondents self-report voting in the opposite party primary relative to the benchmark of administrative records. Among those who self-report turning out and have a validated record of voting, 1.3 percent of those who claimed to have voted in the Democratic presidential primary were validated to have voted in the Republican primary, while 4.6 percent of those who claimed to have voted in the Republican presidential primary were validated to have voted in the Democratic.

With respect to inferences about the ideology of primary voters, we find very similar results regardless of validated behavior or self-reports. Median ideology for self-reported Democratic and Republican primary voters in 1980 are -0.17 [-0.29, -0.05] and 0.35 [0.20, 0.49], 95 percent credible intervals in brackets. The same values for validated Democratic and Republican primary voters in 1980 are -0.17 [-0.31, -0.03] and 0.34 [0.16, 0.53]. In Figure A1, we plot the posterior median rate of turnout in each decile of ideology measured with the administrative records (y-axis) against the same rate measured with self-reports (x-axis). The figure shows that higher rates of turnout are reported than can be validated, but that this overreport does not vary by decile of ideology as indicated by the linear relationship.

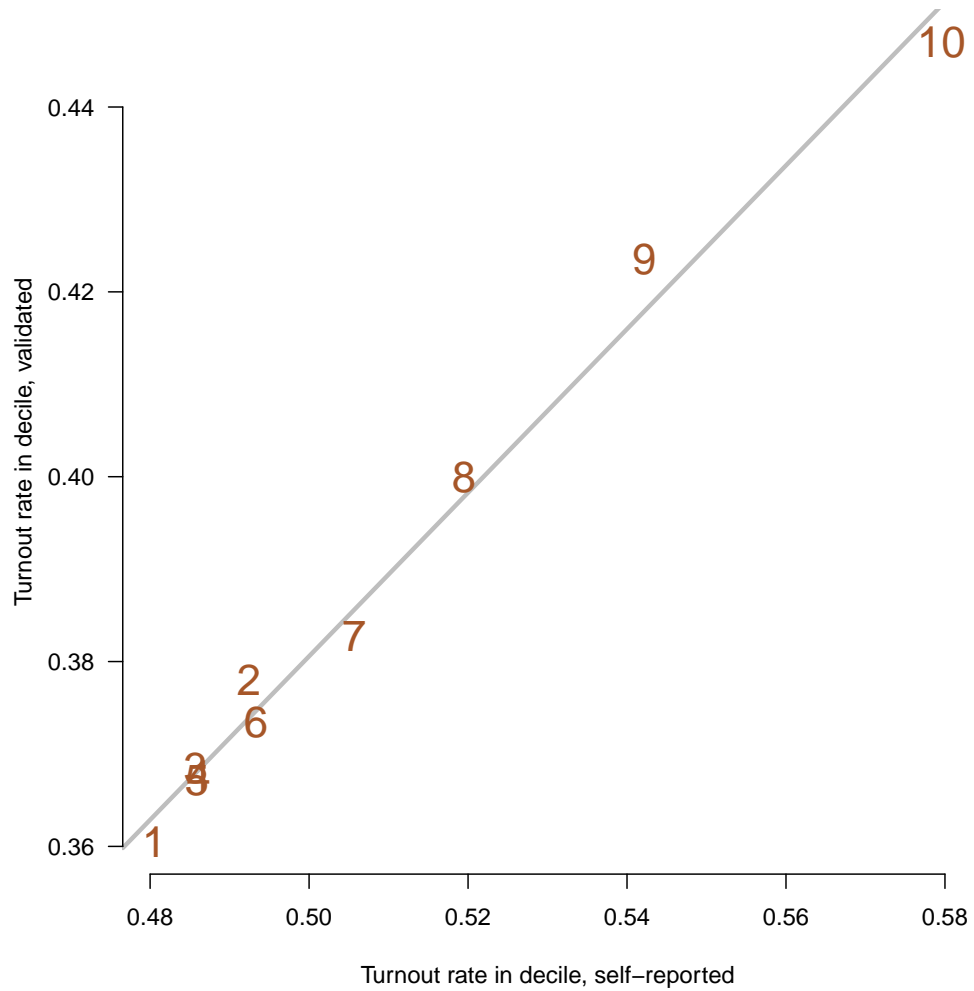
The combination of this evidence from 1980 suggests that inferences about primary ideology and polarization from self-reported primary participation do not differ notably from inferences that would be made from validated behaviors.

B Sorting of primary voters versus partisanship

In Figure A2, we compare party sorting among primary voters (as in Figure 6 above) to sorting among partisan identifiers (including leaners) regardless of turnout, by region. In general, the two groups show similar levels of sorting, with primary voters more conservative in both parties

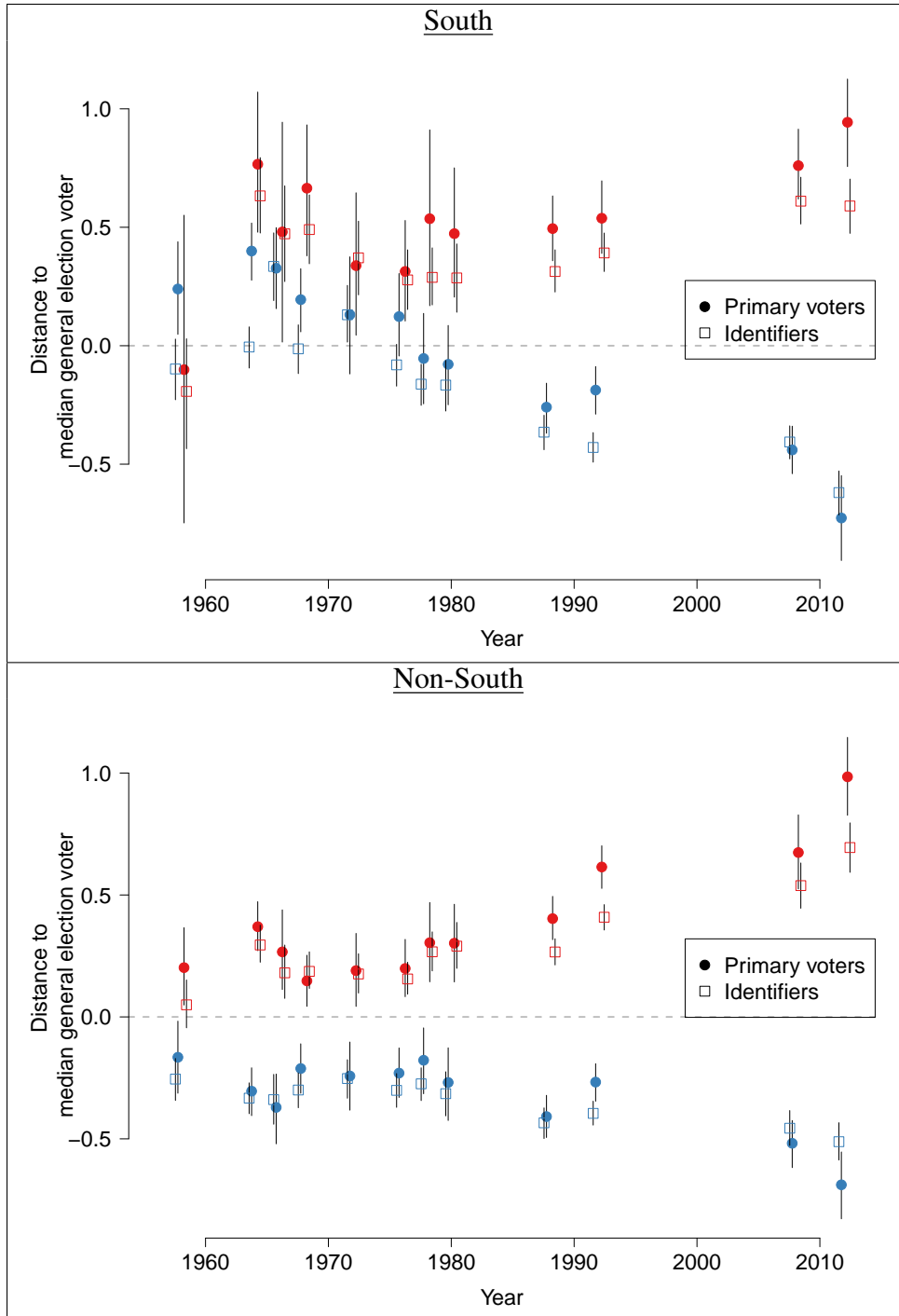
historically, but with primary voters more extreme than identifiers in the latest two elections. These differences are small, but the general conclusion is that primary voters are sorting to a larger degree, relative to their 1958 disposition, than party identifiers, in both regions. Particularly in the South relative to 1958 alignment, primary medians have moved more than identifier medians.

Figure A1: Rates of turnout by decile of ideology 1980



Note: Each point is the rate of primary turnout among that decile of ideology (1=most liberal 10%, 10=most conservative 10% in that year) in 1980, with location on the x-axis self-reported and location on the y-axis validated. Limited to cases matched to voter files.

Figure A2: Polarization in primary electorate versus partisanship by region, 1958-2012



Note: Each point represents the distance from the median voter in that party's primary electorate (closed circles) or among that party's partisan identifiers in the population (open squares) to the median voter in the general electorate in that year.